

Sixth Indo-U.S. Agricultural Knowledge Initiative Board Meeting
New Delhi, April 15-16, 2008

Joint Deliverables

The Indo-U.S. Agricultural Knowledge Initiative Board met on April 15-16, 2008. Present at the Board meeting were Board members from both sides, including government, universities and private sector. Dr. Mangala Rai, Secretary, Department of Agricultural Research and Education and DG, ICAR from India side and Mr. Michael W. Yost, Administrator, Foreign Agricultural Service, USDA from U.S. side, co-chaired the meeting. The Board discussed the agenda items, including progress made in the four focus areas and announced a number of planned activities, including selection of 15 Borlaug Fellows for 2008 who will be paired with U.S. university partners. The focus area reports at the Board meeting led to productive discussions on both accomplishments and future activities. In addition, both sides agreed to set the dates of the next meeting for the second quarter in 2009. During the interim period, need based monitoring on both the sides can be done at the secretariat level and other mutually agreed activities may take place. The agreed planned activities listed below, will take place in 2008 and continue through 2009.

Human Resources and Institutional Capacity Building

- 1 Fifteen Borlaug Fellows including three in Biotechnology, will travel to the United States for 6 weeks' fellowships. The international travel cost will be borne by India.
- 2 The following on-going NASULGC projects will continue-
 - Capacity Building for Risk Analysis and Modeling to promote trade: Tuskegee University will plan the second workshop in May 2008. A group of 8 selected Indian scientists/faculty members will participate.
 - Teaching and Learning Excellence: A Capacity Building Model.
 - National Agricultural Library: The project concept on library strengthening and information systems in cooperation with the USDA National Agricultural Library (NAL) will be finalized within the next 3 months. The Director and Deputy Director of NAL will visit the IARI (ICAR) in New Delhi to identify joint activities and training.
3. The Board noted the two internships extended by Bharti-Wal-mart to NIAM students on a pilot scale. It was brought out that several other private sector companies have expressed their willingness to participate in similar internship programmes. The Board authorized Dr. P.L. Gautam and Dr. David Hansen to finalize the modalities for extending the programmes to appropriate Universities/institutions.
4. The Board further authorized Dr. P.L. Gautam and Dr. David Hansen to explore possibilities of additional private/public internship programmes for students and faculty of Indian agricultural universities/ICAR and U.S. universities. The modalities including funding mechanisms and cost implications are to be presented by May 2008 to the two secretariats for consideration.

5. A joint proposal for capacity building in bio-security will be considered.
6. Project on “Integrated Pest Management of insect-borne viral diseases in Indian Vegetable Production” will be finalized.

Agro-Processing and Marketing

- 1 An India-U.S. Sanitary and Phyto-sanitary seminar is slated to take place in India in September 2008.
- 2 Cochran Fellowship Program will continue in 2008 for up to 17 Fellows with a primary focus area on agro processing and marketing. It was agreed that participants will be selected through mutual consultations.
- 3 Two joint projects on- (i) Extrusion Technology and (ii) Biofuels from ligno-cellulosic agricultural residues and by-products will be implemented in the second half of 2008.
- 4 A “Contract Farming Online Resource Book” for India will be completed in May 2008 for reference.
- 5 A project on “Technology for extraction and characterization of active ingredients in agricultural produce and by-products” was proposed by the Indian side. The U.S. will consider ways to support this proposal.
- 6 Agri-business Workshop: Linking Farmers to Markets will be planned in India. The U.S. side will revise the original draft presented during the Board meeting and will share revisions with stakeholders such as USIBC, CII, FICCI, U.S. Agency for International Development (USAID), the Ministry of Food Processing Industries and ICAR for comments. The proposed workshop will take place in the third quarter of 2008.

Water Management

- 1 The following four on-going projects funded through NASULGC grants will continue-
 1. Water Harvesting for groundwater re-charge and bio-drainage for salinity control.
 2. Sustainable Water Resource Management: U.S.- India Collaborative Research and Education
 3. On Farm Water Management for Rain-fed Agriculture on Benchmark Watersheds in Five Diverse Eco-Regions of India
 4. Information & Communications Technologies for Capacity Building Model in Water Management: U.S. India Collaborative Extension/ Outreach and Distance Education.
- 2 A project on ‘Remediation including bioremediation of heavy metal, arsenic/fluoride pollutants in soil and water’ will be implemented. Iowa State University is the lead U.S. institution for this project.
- 3 Project on ‘Gender and Social Equity Issues in the Water Management’ with University of Florida, Washington State University and Indian counterparts will be revised and considered.
- 4 USDA will provide funding to Michigan State University (MSU) to hold a follow-up workshop in support of the AKI water management area in New Delhi. The workshop will provide the opportunity for past Borlaug Fellowship Program

mentors and mentees to reinforce what was learnt during their U.S. visit and further strengthen the partnerships that were established.

Biotechnology

1. The project on “Pigeonpea Genomics Initiative” will continue.
2. As a follow-up to the joint workshop on “Harnessing the Benefits of Biotechnology” held in March 2008 in New Delhi, the following projects have been identified.
 - (i) Abiotic stress (draught, salinity, high temperature) tolerance,
 - (ii) Virus resistance in important horticultural crops (potato, papaya, banana, tomato),
 - (iii)Diagnostics and vaccines for animal diseases,
 - (iv)Functional genomics in Cassava,
 - (v) Association mapping to identify markers linked with genes/QTLs for nutrient use efficiency in wheat and rice.

The Indian side is committed to provide funding for the above projects. The U.S. side will explore the possibility of funding.

3. It was also agreed that the U.S. will work with counterparts at USDA’s Agricultural Research Service to identify partnership opportunities to work on rust disease resistance in wheat and introducing C4 photosynthetic pathway in rice.

General

- 1 It was brought out that Indian side has reconstituted the Board by including representatives of FICCI and CII. The U.S. side will also reconstitute the Board with two additional members from private sector.
- 2 **Funding:** The Indian side is committed to provide funding for the identified projects in the focus areas. The U.S. side agreed to seek funding through various U.S. agencies. Further, the Board was apprised that the Indian side has committed funding for approved projects under AKI. The U.S. side stated that it is committed to the partnership and would endeavor to seek funding for the partnership in the future.

Other related activities

The Board was apprised that the USAID has solicited a call for concept papers under their Partnership for Innovation in Knowledge in Agriculture (PIKA) program, which supports small and medium enterprise development. The proposal requests are specifically geared to support the four thematic areas under the AKI. Five awards will be granted before the end of September 2008.

The AKI Board was also apprised of activities undertaken by other U.S. agencies. The details, as provided by U.S. side, are given in Annexure I.

Annexure I.

Related activities undertaken by other U.S. agencies as provided by U.S. side- (To be delivered by October 1, 2008)

Biotechnology

1. Large scale and multiple location field trials for Bt Eggplant, a public private partnership to develop a food crop reducing pesticide use and increasing food safety. Partners: Cornell University; MAHYCO, Indian Institute of Vegetable Research, UP; TNAU; Dharwad Agriculture Science University;
2. Three to five Public Private Partnerships established to develop abiotic stress tolerant transgenic rice and wheat established. Partners TBD
3. Virology chip diagnostics (Danforth, USDA, Washington U, IARI, JNU) project funded.

Food Processing/Post Harvesting

1. Farm to market linkages:
 - a. Best practices documented and presented at conference with NIAM, FICCI and CII (jointly with NASULGC?)
 - b. Models of farm/retail linkages: Karnataka Horticulture Mission; Nandani Farmer Cooperative/Foodlands; ITC farm clusters; BAIF mango growers
 - c. Handbooks on horticulture production produced and distributed through NIAM
2. Grades and Standards/Market Information in partnership with NIAM:
 - a. Two study tours to US on agriculture marketing facilitated with NIAM and state boards
 - b. One study tour/with FICCI, on terminal markets, facilitated
 - c. Two state marketing boards able to develop grades and standards and support farmer utilization, with NIAM support
 - d. Assessment of potential for development of Ag marketing portal with MoA's AgMarknet

New Partnerships supporting AKI

One to five new Public Private Partnerships established within AKI workplan framework supporting innovation and knowledge in agriculture.
